OIPE IAP44
JUN 0 8 2007
PATENT & TRADEMARK OFFICE

Attorney Docket: 007570-0305498
Client Reference: Dkt. 19-REG

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of: Confirmation Number: 9094

SYKES ET AL.

Application No.: 10/677,250 Group Art Unit: 3683

Filed: October 3, 2003 Examiner: T. WILLIAMS

Title: BRAKE ACTUATOR

RULE 132 DECLARATION OF STEVEN DEMOE

I hereby declare that:

1. I work for the assignee of the above application, Ventra Group Inc. My position is Tooling Manager. My primary responsibility is the manufacturing of automotive parts and the development of tooling for the same, including specifically parking brake actuators. I have worked at Ventra for 14 years on such products, and have had experience with parking brake actuators for 9-10 years.

2. I have a great deal of experience in stamping of sheet metal, and particularly in progressive stamping. Stamping parts from sheet metal is a primary manufacturing technique that Ventra uses. I have worked with stamping processes for 23 years, and manufactured numerous automotive parts that have components made by stamping of sheet metal.

3. I have reviewed the Perisho '249 patent, and do not believe that its alleged one-piece cam 116 can be made from progressive stamping as a practical matter. This is because the cam has two opposed flanges, and these flanges are shown as having the same material thickness as the central main body (see the cross-section of Fig. 5). A single piece of sheet metal could not, in any practical sense, be stamped to create this configuration. In a stamping process, the striking die would impact the sheet metal at a general, right angle to the sheet. While this could form either one of those two flanges, it could not form both. And it certainly could not form both so that the flanges both have a thickness consistent with the central main body as shown.

4. To me, the most practical processes for forming the double-flanged cam member 116 in Perisho '420 would be die casting or powdered metal forming, both which lend themselves to forming more complex three-dimensional shapes better than stamping.

5. I note that the Perisho '249 patent cited in the Examiner's prior rejection teaches a similar one-piece cam made from powdered metal, and points out the advantage of impregnating the powdered metal with oil. The use of oil impregnation would not be realized with stamped sheet metal, as the sheet metal is not sufficiently porous due to the material characteristics required to withstand high impact stamping.

6. Thus, in reviewing both Perisho patents, I can say that it would not have been obvious to me, or any one else of ordinary skill in my art, to form the double-flanged cams shown therein from stamping as claimed in the above application. I am not aware of any stamping technique that could be used practically to form those cams.

7. I understand that the Examiner in the above application alleges that the Kanemitsu patent shows stamping. This is incorrect. Sheet metal stamping is a high impact striking of a die against sheet metal, which is supported on a supporting die. The striking and supporting dies are configured to impart shaping to the sheet metal under the impact force. In progressive stamping, a series of dies are used to sequentially stamp the sheet metal and progressively deform the sheet metal into a desired final shape. This is most conventionally used where the progression from a sheet metal blank to a final shape in one stamping stroke requires too much force, or where it is desired to make a more complex shape that cannot be achieved in a single stamping stroke.

8. Kanemitsu discloses what I can best characterize as a swaging and splitting technique. It is not progressive stamping, and would not be understood as such by anyone with experience in stamping techniques. As can be seen clearly in Kanemitsu's figures, the edge of the sheet metal is thickened by a roller in a technique similar to common swaging. That thickened portion is then sequentially flattened out to create the final structure illustrated. At no point is any stamping technique used to form that shape.

9. I understand that the claims of the above application are being amended to more clearly point out that the methods use progressive stamping wherein the flange portion is initially bent on angle by stamping, and then further bent by subsequent stamping into a general U-shape. This bending is exactly the type of material deformation that occurs in progressive stamping. In contrast, the process in Kanemitsu does not rely on "bending" and instead achieves its final shape by forcibly "flowing" the material from the thickened bulb into

its final shape. Thus, I do not believe that Kanemitsu is relevant to or suggestive of the progressive stamping technique recited in the amended claims of the above application.

10. I hereby declare that all statements made herein of my knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued therefrom.

Steven Demoe

Date: 6/8/07